

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application.

COMPLETE LISTING OF THE CLAIMS:

Claims 1-12 : (Canceled)

Claim 13 : (Currently Amended) A method of transmitting information from a start node to a target node in a wavelength division multiplex optical communications network having a plurality of nodes, each of which includes a wavelength selective optical cross-connect having ~~a plurality of switching matrices, each one~~ one switching matrix ~~being provided~~ for switching wavelength channels of ~~a specific~~ each specific wavelength, the method comprising the steps of: applying at least two wavelength channels having different wavelengths but which are modulated with the same information to an input of the respective switching matrices of the start node cross-connect provided for these wavelengths; transmitting the at least two wavelength channels to the target node cross-connect; and at the target node cross-connect dropping the at least two wavelength channels at outputs of different switching matrices ~~of the cross-connect~~ provided for the different wavelengths.

Claim 14 : (Previously Presented) The method according to claim 13, and the step of routing the at least two wavelength channels via different intermediate cross-connects between the start node and target node cross-connects.

Claim 15 : (Previously Presented) The method according to claim 14, and the step of keeping the wavelengths of the at least two wavelength channels during transmission between the start node and target node cross-connects.

Claim 16 : (Previously Presented) The method according to claim 14, and the step of modifying the wavelength of at least one of the wavelength channels at an intermediate node cross-connect.

Claim 17 : (Previously Presented) The method according to claim 16, and the step of jointly defining routing paths of the at least two wavelength channels by a central network controller operative for choosing the different wavelengths for transmission between a last intermediate node cross-connect and the target node cross-connect.

Claim 18 : (Previously Presented) The method according to claim 16, and the step of dividing the wavelengths transmissible in the optical network into at least two groups, and the step of selecting the wavelengths of the at least two wavelength channels from different groups, each wavelength modification of one of the channels at an intermediate node cross-connect occurring between wavelengths of a same group.

Claim 19 : (Canceled)

Claim 20 : (Canceled)

Claim 21 : (Canceled)

Claim 22 : (Canceled)

Claim 23 : (Canceled)

Claim 24 : (Canceled)